teckcomico

November 15, 2007

Mr. Michael F. Gearheard Director, Office of Water, Region 10 United States Environmental Protection Agency 1200 Sixth Avenue, Suite 900, OW-133 Scattle, WA 98101



Subject: NPDES Permit #AK-003865-2 (Mine Site), Discharge Monitoring Report,

October 2007

Dear Mr. Gearheard:

Attached are the results of monitoring as required by the NPDES Wastewater Discharge Permit #AK-003865-2 (Permit) for the Teck Cominco Alaska Incorporated (Teck Cominco) Red Dog Mine.

On August 22, 2003 a modification to the Permit became effective. On August 28, 2003 the permit expired and was administratively extended until a renewed permit is issued.

A renewed permit was issued effective April 12, 2007. On September 27, 2007, the renewed permit, which had been subject to a pending appeal, was withdrawn by EPA. Teck Cominco continues to report as required by the August 23, 2003 renewed permit.

The permit regulates Outfall 001, Industrial Treated Wastewater Effluent, and Outfall 002, Domestic Sewage Treatment Plant Effluent.

OUTFALL 001

Ι. INORGANIC PARAMETERS

Discharge from Outfall 001 was suspended on October 5, 2007. Monitoring results for this DMR reflect monitoring results from October 1, 2007 through October 5, 2007.

Inorganic monitoring for NPDES permit parameters were conducted and the results are contained in Attachment I. The in-stream total dissolved solids concentration was maintained below the State Water Quality standard of 1,500 mg/L for the reporting period.

Table A contains results of an expanded cyanide sampling program conducted in October 2007. This is a small portion of a much larger ongoing cyanide analytical investigation. Teck Cominco plans to conduct monthly sampling similar to what is contained in the Table while operating under the August 23, 2003 renewed permit.

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Table A. Outfall 001 Cyanide Analysis, October 2007

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Date	Lab		Field Fixed	Sulfide F	ield Fixed
Date		Total CN (μg/l)	WAD CN (μg/l)	Total CN (µg/l)	WAD CN (μg/l)
	ACZ	22 ^J	4)	67	11
10-01-07	NCA	46	4.88	55.7	26.6
i i	NCA	37.8	5.35	54.1	29.2

J - Estimated value between the MDL and MRL.

As Table A indicates, samples were split between two separate analytical laboratories and each sample was split again, with one split being field treated to fix sulfides per the permit specified cyanide analytical method, SM 4500 CN. As has been discussed with members of your staff on numerous occasions, the total cyanide method continues to yield highly variable results.

The average value of 32 µg/l total cyanide, not sulfide fixed, was reported in Attachment 1. Notification of this result was submitted to EPA 24-hour hotline on November 12, 2007, the date on which all the data and corresponding quality assurance was received and reviewed. Both laboratories observed abundant precipitate in the samples that likely caused positive interference in the analysis. The laboratories were unable to investigate the samples further, as the entire sample was consumed verifying the results. Given the highly variable results for the cyanide method observed in the past and the observed precipitate in these samples, Teck Cominco does not feel these cyanide results represent the true value.

II. ORGANIC PARAMETERS

An Organic Priority Pollutant Scan (OPPS) was not required or conducted during the reporting period.

III. WHOLE EFFLUENT TOXICITY

Whole Effluent Toxicity (WET) tests were conducted in October 2007 and the results for *Pimephales promelas* and *Ceriodaphnia dubia* are contained in Attachment I. WET test results were within permitted limits for both species tested. In addition to the permit required WET tests, tests were conducted on a mock effluent that contained an identical concentration and total dissolved solids (TDS) composition as the Outfall 001 water tested. The test was designed to mimic the TDS toxicity of the effluent without any other possible toxin present. Table D contains the results of the WET and mock effluent tests.

Table D. Results of C. dubia Tests Conducted on Outfall 001, October 2007

First Aliquot	Lab	Whole Effluent	Mock Effluent (TUc)
Collection Date		(TUc)	
09/05/2007	ENSR	3.37	3.09
09/05/2007	CH2M Hill	3,27	4.04

Permittee Name				National P	ollutant Disch	National Pollutant Discharge Elimination System (NPDES)	n System (NP	DES)			
leck Cominco Alaska incorporated	orporated				Discharge Mo	Discharge Monitoring Report (DMR)	t (DMR)	,			
3105 Lakeshore Drive, Bld. A, Ste. 101	d. A, Ste. 101		1		(2-16)		(17-19)				
Anchorage, Alaska 99517	ts w	!		Permit No.	AK-003865-2		001 A	Discharge No.			
Red Dog Operations					Monitor	Monitoring Period					
Kotzebue, Alaska 99752			From:	- 20	10 - 01	To:	70	10 - 05	posso		No Discharge
				(20-21, 22-23,	24-25)		28-29,	30-31)	9	AVEVO	Annia managan
		(3 card only	(3 card only) Quantity/Loading	oading	(4 card only) QU	Quantity or Concentrations	trations				**************************************
Parameter (32 - 37)		(46-53) Average	(54.61) Maximum	Units	(38-45) Minimum	(46.53) Average	(5461) Maximilm	folk	(62-63) # of =>	(64-68)	(69-70)
Temperature, Water,	Sample						-	3115		7	שביה יי
Deg. Centigrade 00010 1 0 0	Measurement					0,0	D'./	ູເນ	n/a	2/day	grab
Value	Permit Requirement				nle	REPORT	REPORT			daily	grab
Turbidity 00070 1 0 0	Sample Measurement					0.30	0.30	JEN JEN	n/a	1/month	Composite
	Permit Requirement				s/u	REPORT	REPORT	ş- 		weekdy	24 comp
BOD (Biochemical Oxygen Demand), 5 Day (20 Deg. C)	Sample Measurement					<1.02 *	<1.02	mg/L.	n/a	1/month	Composite
Effluent Gross Value	Permit Requirement				n/a	REPORT	REPORT	ę		monthly	24 comp
рН 00400 1 0 0	Sample Measurement				9.2		9.5	S.U.	0	2/day	grab
Effluent Gross Value	Permíť Requirement				0.9	n/a	10.5	*	A CONTRACTOR OF THE PARTY OF TH	weekh	qrab
pa	Sample Measurement					<5.0 *	<5.0	mg/L	0	1/month	Composite
obsor 1 0 0 Effluent Gross Value	Permit Requirement				η/a	20.0	30.0	*		weekh	24 comp
Nitrogen, Ammonia Total (As N)	Sample Measurement					4.5	4.5	T/6m	0	1/month	Composite
Value	Permit Requirement				n/a	REPORT	REPORT	·		weekly	24 comp
Oyanide, total (As CN)	Sample Measurement					32 +	32 ⁺	hg/L	+	1/month	Grab
Value	Permit Requirement		· · · · · ·		nla	9.6	9.0	>		weekly	4670
ipai	Executive Officer										33.5
John B. Knapp General Manager	X 4 182	l certify supervis	I certify under penalty of supervision in accordanc	of law that the	is document any vstem designed	I certify under penalty of law that this document and all attachments were prepared under my direction gelephone supervision in accordance with a system designed to assure that qualified personnel monerty carbor and	vere prepared u	nder my direction	Telephon		Date
Somments & Explanations	S	evaluate	evaluate the information submitted.	on submitted	. Based on my i	Based on my inquiries of the persons who manage the system, of	sons who mana	ge the system, or	907-42		2007-11-15
Ondicates the number of non detect values used	tect values used	those pe	ersons directly	responsible	for gathering the	those persons directly responsible for gathering the information, the information submitted is, to the be	nformation subn	nitted is, to the be	area code - number	٦	year mo day
See Cover letter		for subn	lowieuge aru ritting false inf	pellet, irue a ormation, inc	ccurate and com luding the possi	or if it is by wedge and belief, true accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	that there are s prisonment for I	ignificant penaltie	S	-	
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